NUS CORPORATION
A Halliburton Company

02-8607-03-PA

POTENTIAL HAZARDOUS WASTE SITE

PRELIMINARY ASSESSMENT

COMPLETED

C & D Batteries Site Name	NYD064337298 EPA Site ID Number
Route 209 Huguenot, New York Address	02-8607-03 TDD Number

Date of Site Visit: Off-site reconnaissance 8/7/86

SITE DESCRIPTION

C & D Batteries is an active lead battery manufacturing operation on approximately 17 acres located north of Port Jervis on Route 209 in Huguenot, New York. All manufacturing operations are housed under one roof. There is a fence around the outside property boundary. The types of hazardous waste generated are lead contaminated trash, waste water contaminated with sulfuric acid and lead sludge. The operation generates approximately 1 million gallons of lead contaminated waste water annually. There was a waste lagoon onsite used by a previous owner for disposal of waste water from manufacturing television tubes but it is no longer in existence.

The current treatment system is made up of a series of treatment steps which occur in tanks or totally enclosed units. The effluent from the system is not hazardous and is transported by truck to a publicly owned treatment works. Lead containing sludge is dewatered and stored for offsite shipment in accordance with RCRA manifest requirements.

PRIORITY FOR FURTHER ACTION: High ___ Medium ___ Low ___ None X

RECOMMENDATIONS

No further action is recommended, as the New York Department of Environmental Conservation has a Phase II investigation planned for the site. A contract will be awarded in October or November of this year. The actual field work will begin in March or April of 1987.

Prepared by: Jane Bullis of NUS Corporation **Date:** 8/20/86

253796

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY D064337298

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)
C & D Batteries

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Route 209

03 CITY
Huguenot

04 STATE | 05 ZIP CODE | 06 COUNTY | 07 COUNTY CODE | 08 CONG DIST.
NY | 12746 | Orange | 071 | 26

09 COORDINATES
LATITUDE: 41° 25' 08". N
LONGITUDE: 074° 37' 43". W

10 DIRECTIONS TO SITE (Starting from nearest public road)
Route 209 North out of Port Jervis into Huguenot, site is on the right.

III. RESPONSIBLE PARTIES

01 OWNER (if known)
C & D Power Systems (Formerly C & D Batteries)

02 STREET (Business, mailing, residential)
Route 209 Box 209

03 CITY
Huguenot

04 STATE | 05 ZIP CODE | 06 TELEPHONE NUMBER
NY | 12746 | (914) 856-4466

07 OPERATOR (if known and different from owner)

08 STREET (Business, mailing, residential)

09 CITY

10 STATE | 11 ZIP CODE | 12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP (Check one)
[X] A. PRIVATE [ ] B. FEDERAL: _____ (Agency name) [ ] C. STATE [ ] D. COUNTY [ ] E. MUNICIPAL
[ ] F. OTHER: _____ (Specify) [ ] G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
[ ] A. RCRA 3001 DATE RECEIVED: / / [X] B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: 6/02/81
[ ] C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
[X] YES DATE: 2/19/86 [ ] NO
BY (Check all that apply)
[X] A. EPA [ ] B. EPA CONTRACTOR [X] C. STATE [ ] D. OTHER CONTRACTOR
[ ] E. LOCAL HEALTH OFFICIAL [ ] F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
[X] A. ACTIVE [ ] B. INACTIVE [ ] C. UNKNOWN

03 YEARS OF OPERATION
BEGINNING _____ ENDING _____ [X] UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
This site manufactures lead/acid batteries. Hazardous waste from operation include lead, barium, sulfuric acid and corrosive waste water.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Releases from normal operations have contributed to ground contamination.

IV. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste information and Part 3 - Description of Hazardous Conditions and Incidents)
[ ] A. HIGH (Inspection required promptly) [ ] B. MEDIUM (Inspection required) [ ] C. LOW (Inspection on time available basis) [X] D. NONE
(No further action needed. complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Diana Messina	U.S. EPA Region II Edison, NJ	(201) 321-6685

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Jane Bullis		NUS FIT II	(201) 225-6160	8/11/86

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY D064337298

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- X A. SOLID
- B. POWDER, FINES
- X C. SLUDGE
- D. OTHER: _____ (Specify)
- E. SLURRY
- X F. LIQUID
- G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS
- CUBIC YARDS
- NO. OF DRUMS 5

03 WASTE CHARACTERISTICS (Check all that apply)

- X A. TOXIC
- X B. CORROSIVE
- C. RADIOACTIVE
- D. PERSISTENT
- E. SOLUBLE
- F. INFECTIOUS
- G. FLAMMABLE
- H. IGNITABLE
- I. HIGHLY VOLATILE
- J. EXPLOSIVE
- K. REACTIVE
- L. INCOMPATIBLE
- M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	5 55-gallon	Drums	
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	Unknown		
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SLU MES	Lead	7439-92-1	DR TK	Unknown	
MES	Barium	7440-39-3	Unknown	Unknown	
IOC	Fluoride		Unknown	Unknown	
ACD	Sulfuric acid	7664-93-9	TK		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (See specific references. e.g., state files, sample analysis, reports)

EPA Notification of Hazardous Waste Site.
RCRA Inspection Summary.
Hydrogeologic Investigation Data from C & D Batteries.

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE:) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 122 04 NARRATIVE DESCRIPTION

There is potential for groundwater contamination via routine operations, however 11 monitoring wells have been installed to determine if unacceptable levels of contaminants have percolated through the soil to the groundwater.

01 X B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE:) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

A lagoon used by a previous owner for disposal of waste water offered a runoff potential for certain constituents from the lagoon to an unnamed stream. The lagoon has since been capped with a concrete building.

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

There is little potential for air contamination as the wastes that are generated are all contained and are not volatile.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

The facility appears to be maintained and operated to minimize fire, explosion or releases which could threaten workers or the environment. The site does not store or treat ignitable, reactive or incompatible waste.

01 X E. DIRECT CONTACT 02 OBSERVED (DATE:) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

The potential exists for the workers of C & D Batteries to have direct contact with corrosive waste water and lead sludges, however the site is completely fenced in with an entrance gate to deter unauthorized personnel from entering the premises.

01 X F. CONTAMINATION OF SOIL 02 X OBSERVED (DATE: March 1982) _ POTENTIAL _ ALLEGED
03 AREA POTENTIALLY AFFECTED: Unknown (ACRES) 04 NARRATIVE DESCRIPTION

Environmental Resources Management Inc., a private consulting firm, assessed the soil as having high levels of fluorides and levels of lead above normal.

01 X G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE:) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 122 04 NARRATIVE DESCRIPTION

There is a great potential for drinking water contamination as the soil is highly permeable and fluorides and lead have been found on site. Contaminated soil has been found within 3 miles of community drinking wells.

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

There has been no history of worker exposure and there seems to be regular monitoring of the health and safety of the workers, therefore the potential for exposure is very low.

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

The site is entirely fenced with a gate at the entrance which limits outside injury and population exposure from the site. Once inside the fence, the potential is still low as the treatment system is totally enclosed.

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X J. DAMAGE TO FLORA — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

There is potential for flora damage because of the lead and fluoride contaminants in the soil, although there are monitoring wells to test for any increase of these contaminants.

01 X K. DAMAGE TO FAUNA — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

The potential exists for corrosive waste water which could leak from holding or treatment tanks to enter a unnamed stream, down slope from the site which could effect local fauna that use the stream.

01 X L. CONTAMINATION OF FOOD CHAIN — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

Soil and surface water contamination could result in strong impacts on local food chains that depend on the areas soil and water.

01 _ M. UNSTABLE CONTAINMENT OF WASTES — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

All tanks used for storage and treatment of waste are inspected daily.

01 X N. DAMAGE TO OFFSITE PROPERTY — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

The potential for damage to offsite property exists as contaminated soil has been observed and could be entering the groundwater which can migrate off site.

01 _ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

The site is located in a rural area therfore there is little potential for contamination of sewers or storm drains.

01 _ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

There was a waste lagoon onsite used by a previous owner for disposal of waste water from manufacturing of television tubes. The lagoon is no longer in existence.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

All known hazards are described above.

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

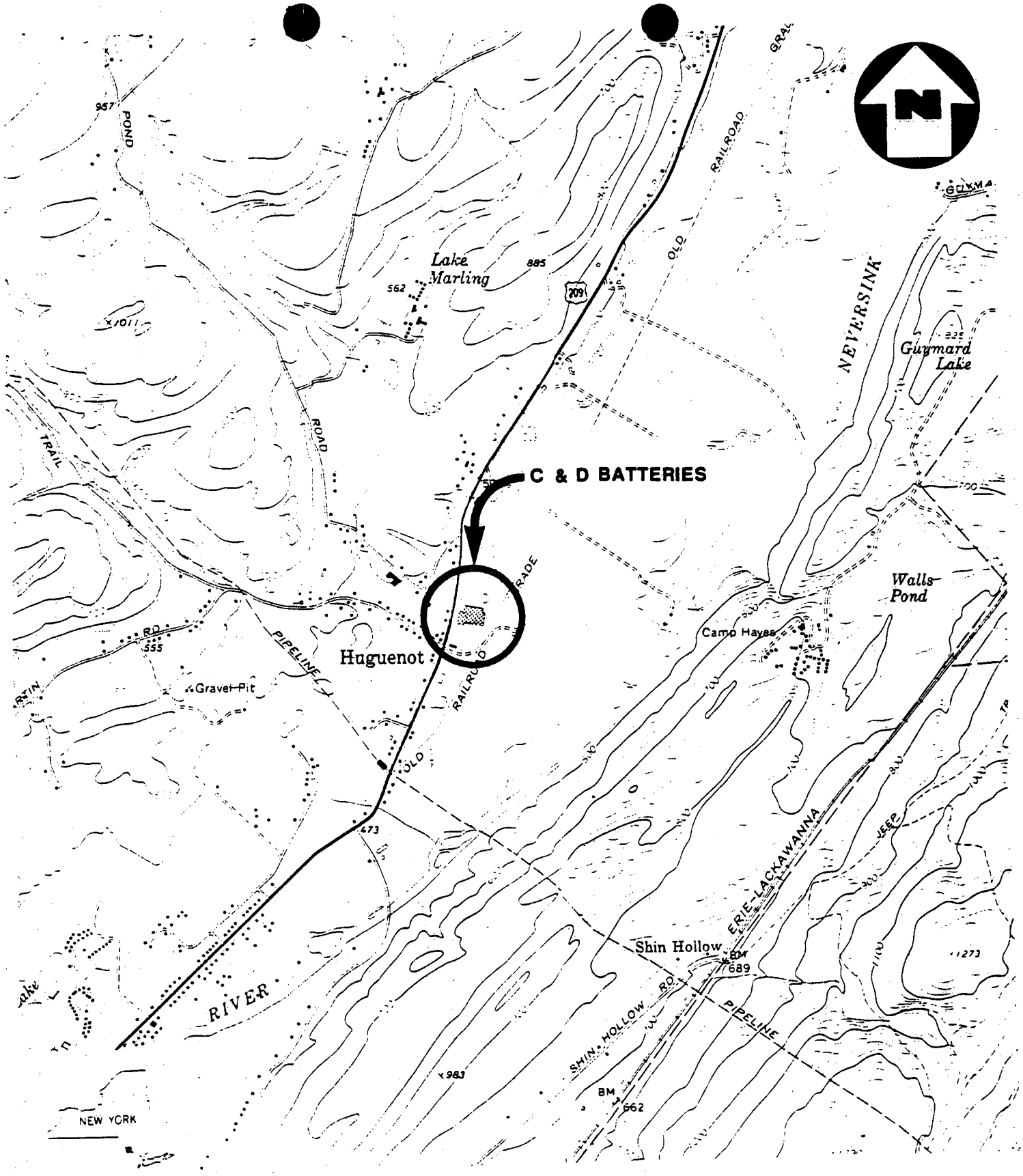
The newly appointed safety and emergency coordinator had not received formal training regarding hazardous waste practices as of February 1986.

V. SOURCES OF INFORMATION (Cite specific references. e.g., state files, sample analysis, reports)

NYSDEC Campliance Inspection Report 2/21/86.
U.S. EPA Hazardous Waste Form.
SAX, N.K., 1979, Dangerous Properties of Industrial Matrials.
Telecon Note: NYSDEC Carl Hoffman 8/13/86.

APPENDIX A

MAPS AND PHOTOGRAPHS



(QUAD) PORT JERVIS NORTH, N.Y.

FIGURE 1

SITE LOCATION MAP

C & D BATTERIES, HUGUENOT, N.Y.

SCALE: 1" = 2000'

NUS CORPORATION

A Halliburton Company

C & D BATTERIES
RT. 209 HUGUENOT, NEW YORK
TDD# 02-8607-03
AUGUST 14, 1986

PHOTOGRAPH INDEX

C & D BATTERIES
RT. 209 HUGUENOT, NEW YORK
TDD# 02-8607-03
AUGUST 14, 1986

PHOTOGRAPH INDEX

Photo Number	Description	Time
1P-19	Looking southeast from Rt. 209 shows entrance to facility. Photographer: Jack Taylor.	1219
1P-20	Looking east from Rt. 209 shows parking area of facility. Photographer: Jack Taylor.	1219

C & D BATTERIES, RT. 209 HUGUENOT, NEW YORK

1P-19 August 7, 1986 1219
Looking southeast from Rt. 209 shows entrance to facility.
Photographer: Jack Taylor.

1P-20 August 7, 1986 1219
Looking east from Rt. 209 shows parking area of facility.
Photographer: Jack Taylor.

APPENDIX B

BACKGROUND

EPA Notification of Hazardous Waste Site

United States Environmental Prot Agency Washington DC 20

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

81062 NYS 000 001 336

A Person Required to Notify:

Enter the name and address of the person or organization required to notify.

Name: Eltra Corporation, a wholly owned subsidiary of Allie Corporat

Street: P. O. Box 1013R

City: Morristown State: N J Zip Code: 07960

B Site Location:

Enter the common name (if known) and actual location of the site.

NYD064337298

Name of Site: C & D Batteries Division-Huguenot Plant

Street: P. O. Box 209, Route 209

City: Huguenot County: Orange State: N Y Zip Code: 12746

C Person to Contact:

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title): Giebel, Edmund A.

Phone: (201) 455-6569

Director of Pollution Control

D Dates of Waste Handling:

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year): 1973 To (Year): ~~Present~~ 1981

E Waste Type: Choose the option you prefer to complete

Option I: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☐ Organics
2. ☐ Inorganics
3. ☐ Solvents
4. ☐ Pesticides
5. ☒ Heavy metals
6. ☒ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☐ Other (Specify)

Source of Waste:
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☒ Other (Specify) (Lead-acid battery plant) 400

Option 2: This option is available to persons familiar with Resource Conservation and Recovery Act (RCRA) Section 3 regulations (40 CFR Part 261).

Specific Type of Waste:
EPA has assigned a four-digit number to each hazardous v listed in the regulations under Section 3001 of RCRA. Ente appropriate four-digit number in the boxes provided. A cop the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the located.

Form Approved
OMB No. 2000-0138
EPA Form 8900-1

Notification of Hazardous Waste Site — Side Two

F Waste Quantity:

Place an X in the appropriate boxes to indicate the facility types found at the site.

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

Facility Type

1. ☐ Piles
2. ☐ Land Treatment
3. ☐ Landfill
4. ☐ Tanks
5. ☐ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☒ Other (Specify) See Item I

Total Facility Waste Amount

cubic feet

gallons

Total Facility Area

square feet

acres

See Item I

G Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☐ Suspected ☐ Likely ☐

See Item I

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and asse hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

I Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

(This is a lead battery manufacturing site. Releases from normal operations over a long period of time may have contributed to ground contamination by lead and possibly sulfuric acid. Some of such contamination is susceptible to run-off during rainfall events. Present data reveals ppm levels of lead in rain run-off water in the range of none detectable to 5. Data is being developed to provide a basis for State/EPA notification.)

J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other".

Name Edmund A. Giebel

Street P. O. Box 1013R

City Morristown State N J Zip Code 07960

Signature Edmund A Giebel Date 6/2/81

- ☒ Owner, Pres
- ☐ Owner, Past
- ☐ Transporter
- ☒ Operator, Pr
- ☐ Operator, Pa
- ☐ Other

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
NYX9	8/13/86	0930

DISTRIBUTION:

PRELIMINARY ASSESSMENT

BETWEEN:	OF:	PHONE:
CARL HOFFMAN	NYSDEC	(518)457-9538

AND: JANE BOLLIS (NUS)

DISCUSSION:

Call regarding update on C+D Batteries in Orange Co. The only reports that they had available were from 1982. NYSDEC have a Phase II INVESTIGATION planned for the immediate future.

ACTION ITEMS:

New York State Atlas of Community Water System Sources

1982

NEW YORK STATE
DEPARTMENT OF HEALTH

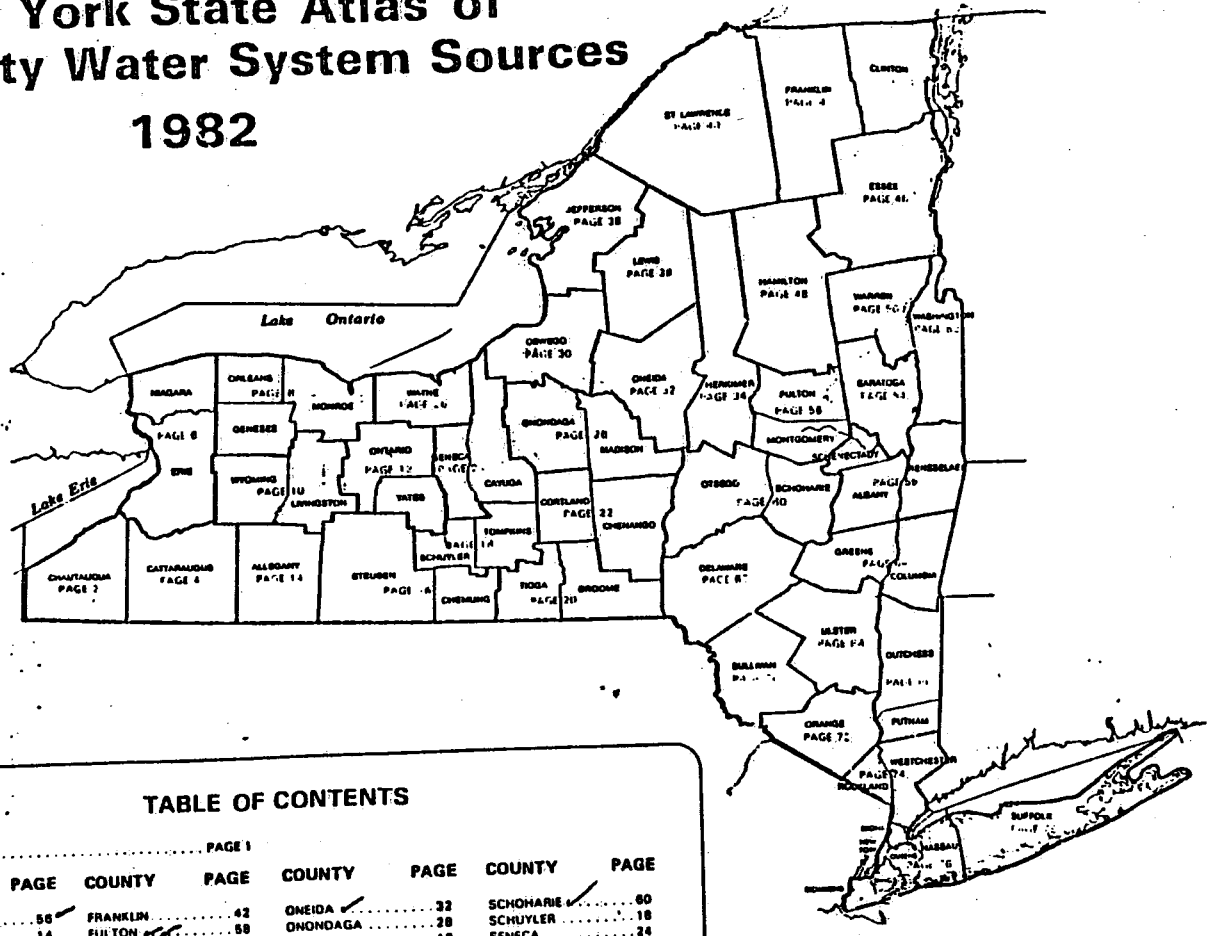


TABLE OF CONTENTS

LEGEND

BOUNDARIES AND PLACES

International
State
County
Town
Indian Reservation
City
Village
Unincorporated Place
Federal Reservation
Built-up Area (Over 25,000 population including any contiguous city or village)

CLASSIFICATION OF POPULATED PLACES

100,000 or more — YONKERS
50,000 to 100,000 — Levittown
12,500 to 50,000 — Poughkeepsie
2,500 to 12,500 — Hampton Bays
250 to 2,500 — Boscawen
250 or less — Canton

TRANSPORTATION

Highways
- Divided Highways
  - Full Control of Access
  - Partial or No Control of Access
- Undivided Highway
- Interchange
- Touring Route (State, U.S., Interstate) or State Parkway
- Touring Route Markers: State, U.S., Interstate

Railroads
- Operating Line
- Service Discontinued
- Operator
- Owner (If Other than Operator)
- Company Having Trackage Rights

Airports (Open to the Public, Military)
- Runway under 4000'
- Runway over 4000'

Rest Areas
- Food, Gas, Rest Rooms
- Gas, Rest Rooms
- Rest Rooms
- Parking Only

RECREATION FACILITIES

- State or National Recreation Area
- State Campground
- State Boat Launching Site
- State Canal Park
- State Fish Hatchery
- Other State Recreation Site

FOREWARD

SOURCE LOCATIONS

The county maps in this atlas show the locations of surface water intakes and groundwater sources for community water systems in New York State. A community water system is defined in Part 5 of the New York State Sanitary Code as a public water system which serves at least five service connections used by year round residents or regularly serves at least 25 year round residents. Many different types of water systems are therefore included. Community water systems which purchase 100 percent of their water and have no sources of their own are not shown.

Each county map is accompanied by a list of the county's community water systems, population served, and source names. Systems are separated into MUNICIPAL COMMUNITY (program code 100) and NON-MUNICIPAL COMMUNITY (all other program codes) and listed alphabetically within each. MUNICIPAL COMMUNITY water systems are operated by a city, town, village, county or water authority or the water system may be a water district or privately owned. NON-MUNICIPAL COMMUNITY systems are primarily mobile home parks but also include apartments/condominiums, resident health care facilities, resident institutions, and federal facilities.

EXPLANATION OF SYMBOLS

Suface water intakes are designated on the county maps by a triangle (▲) accompanied by the corresponding water supply number.

Groundwater sources are designated by a dot (•) followed by the supply number. Multiple wells separated by less than 1000' and supplying the same water system are shown with one dot. Springs and infiltration galleries are shown as groundwater sources unless the local health unit has designated it a surface source. Therefore, springs and infiltration galleries are listed as wells (springs) or wells (infiltration galleries).

If a Community Water System has source(s) located outside the county, these sources are shown in the county list and show in parentheses the system number, county and page number. Conversely, when a county contains source(s) which supply community water systems located outside the county, the name of the system is also shown in that county's list of sources.

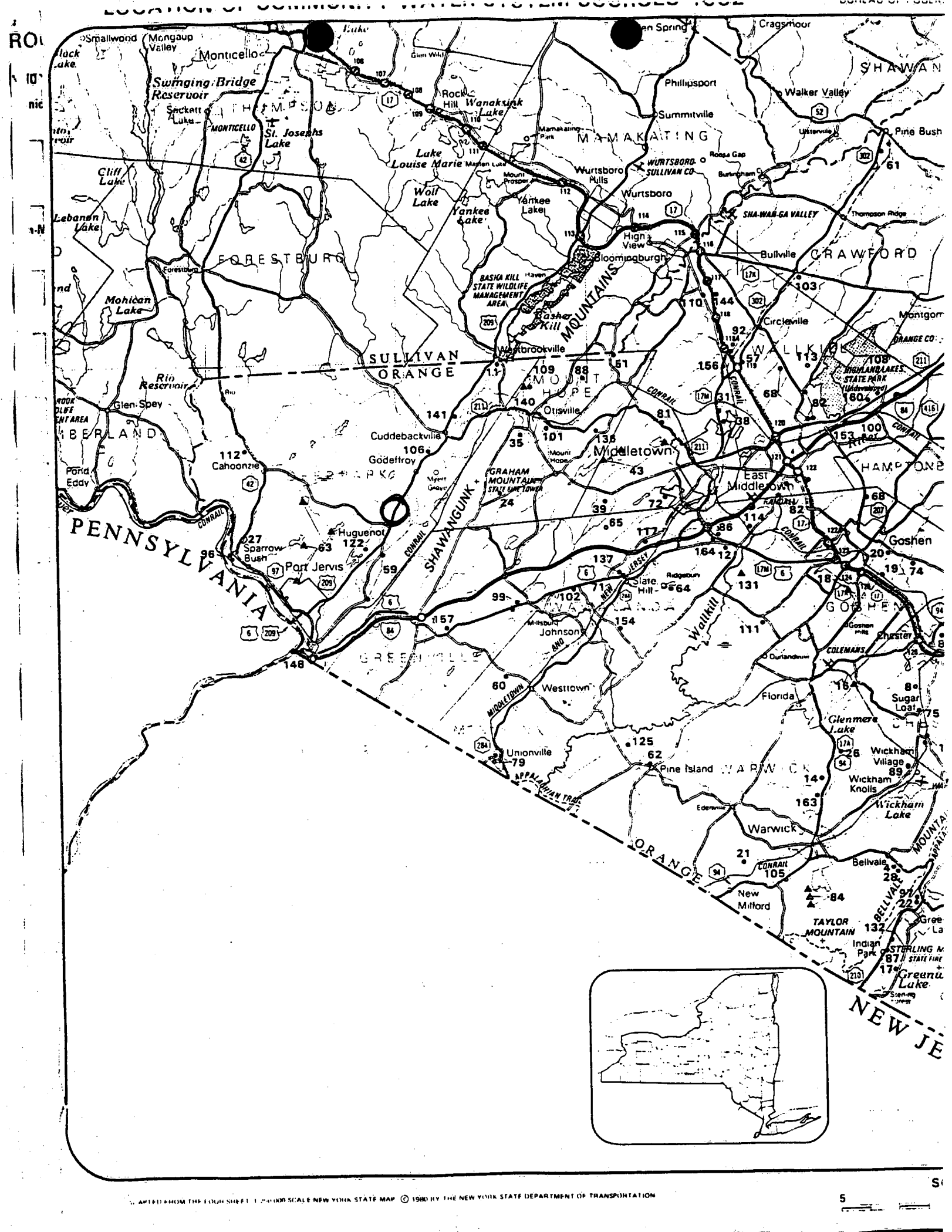
ACKNOWLEDGEMENT

Data compiled in this Atlas is based on location of community water system sources from visits, in 1979, to every county health unit in the State by technicians working for the Bureau of Public Water Supply Protection. This data was updated in 1982 through use of the Department of Health's SAFWATER computer inventory and through limited field review. The Bureau of Public Water Supply Protection wishes to acknowledge the following organizations who have made the Atlas possible:

To the United States Environmental Protection Agency for funding this Atlas as a part of the Underground Injection Control Program.

To the Cartography Section of the New York State Department of Transportation for providing the talent, time and effort in performing the necessary cartographic work to produce this Atlas.

To the engineers and technicians of the Bureau of Public Water Supply Protection of the New York State Department of Health for the painstaking work of gathering the basic data and cross-checking it, and for leading this project through to completion.



ADAPTED FROM THE FOUR SHEET 1:250,000 SCALE NEW YORK STATE MAP © 1980 BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION

ORANGE COUNTY

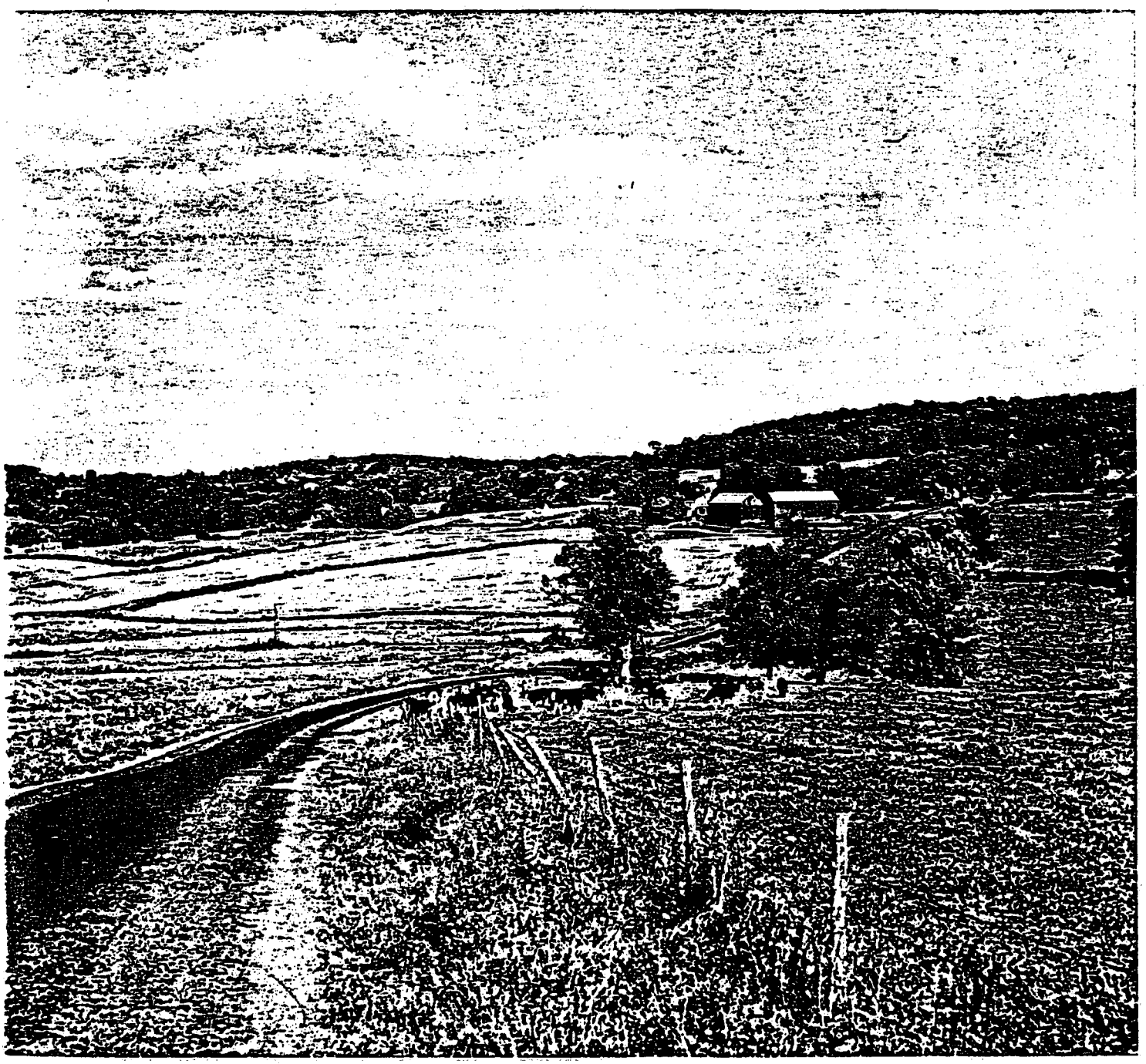
ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		
1	Arden Farms Dairy Company	60.	Echo Lake
2	Arrow Park, Inc.	NA.	Wells
3	Beaver Dam Lake Development	400.	Wells
4	Bellvale Park Water District	100.	Wells
5	Blooming Grove Water District #1	2000.	Wells
6	Blooming Grove Water District #2 Oxford Heights	80.	Wells
7	Blooming Grove Water District #3	200.	Wells
8	Chester Village	1910.	Walton Lake, Wells
9	Cornwall-on-Hudson, Main Line	3164.	Alec Meadow Reservoir, Arthurs, Tamarac, & Sphagnum Ponds
10	Cornwall-on-Hudson, Mt. Line	300.	Upper Reservoir
11	Deer Park Manor	400.	Wells
12	Denton Hills	130.	Wells
13	Drew Road Association	50.	Wells
14	Eurich Heights	200.	Wells
15	Fleetwood Manor - Holiday Park	225.	Wells
16	Florida Water Works	2000.	Glenmere Lake
17	Forest Knolls	400.	Wells
18	Goshen Village	5000.	Goshen Reservoir
19	Goshen Water District #2 (Arcadia Hills)	750.	Wells
20	Goshen Water District #1	500.	Wells
21	Greater Display & Wire Forming	75.	Wells
22	Greenwood Lake Village	2150.	Wells
23	Harriman Village	1800.	Wells
24	Hidden Valley Estates	200.	Wells
25	Highland Falls Village	5500.	Bog Meadow Pond
26	Hill Lake Estates	40.	Wells
27	Hillcrest Heights	25.	Wells
28	Hillside Acres	80.	Wells
29	Indian Kill	2000.	Indian Kill
30	J. Ludlam Water Supply	15.	Wells
31	Keystone Park	150.	Wells
32	King Tract	200.	Wells
33	Kiryas Joel	2500.	Wells
34	Lake Hill Farms Water District	360.	Wells
35	Lake Linda	30.	Wells
36	Lake Vue Park Water District	160.	Wells
37	Lakewood Homes	60.	Wells
38	Lincoln Park	32.	Wells
39	Lorelei Lake	150.	Wells
40	Maple Brook	160.	Wells
41	Maybrook Village	2500.	Wells
42	Merriwold Water Company	1600.	Wells
43	Middletown City	21454.	Monhagen, Highland & Shawangunk Lakes
44	Monroe Hills Estates	120.	Wells
45	Monroe Village	6000.	Lake Mombasha
46	Monroe Water District #1 (High Ridge)	NA.	Lake Mombasha
47	Monroe Water District #2 (Sterling Manor)	90.	Wells
48	Montgomery Village	2320.	Wells
49	Mountain Lodge Park Development	1600.	Wells
50	Mountain View Estates	250.	Wells
51	New Vernon Estates	150.	Wells
52	New Windsor Consolidated Water District	12000.	Wells
53	Newburgh City	23488.	Lake Washington
54	Newburgh Consolidated Water District	9000.	Chadwick Lake
55	Orange Lake Development Company	20.	Wells
56	Orchard Hill	174.	Wells
57	Orchard Hill Water District	80.	Wells
58	Orchard Lake Park	250.	Wells
59	Painted Apron Village	16.	Wells
60	Pheasant Hill	150.	Wells
61	Pine Bush Water District	1500.	Wells
62	Pine Island Water Company	50.	Wells
63	Port Jervis City	8500.	Reservoirs
64	Ridgebury Lake Acres	60.	Wells
65	Robin Meadows	126.	Wells
66	Rural Ridge Water District	300.	Wells
67	Scheller Water Supply	25.	Wells
68	Scotchtown Park	180.	Wells
69	Scott Acres	120.	Wells
70	Skyview Hills	450.	Wells
71	Slate Hill (Green)	40.	Wells
72	Squirrel Hills	78.	Wells
73	Star Industries	NA.	Wells
74	Stone Hedge Water Company	160.	Wells
75	Sugar Loaf Hills	125.	Wells
76	Surrey Meadow Water District	900.	Wells
77	Tappan Homes	536.	Wells
78	Tuxedo Park Village	1800.	We-Wah Lake
79	Unionville Village	576.	Wells
80	Walden Village	5500.	Wells
81	Wallkill Heights	48.	Wells
82	Wallkill Water District #1	12000.	Wells
83	Walton Lake Estates	500.	Wells
84	Warwick Village	4320.	Warwick Reservoir
85	Washingtonville Village	NA.	Wells
86	Wawayanda Development Corporation	125.	Wells
87	West Side Greenwood Lake Water District	1800.	Wells
88	Whitlock Farms	120.	Wells
89	Wickham Village	1100.	Wells
90	Woodbury Water District #1	4500.	Wells
91	Woodbury Water District #6 (Amdor Park)	360.	Wells
92	Woodland Acres	100.	Wells
	Non-Municipal Community		
93	Bear Mountain State Park (Rockland Co, Page 74)		Turkey Lake, Queensboro Lake
94	Bel-Air Trailer Park	59.	Wells
95	Brittany Terrace	150.	Wells
96	Butler Mobile Homes	200.	Wells
97	Campbell Water Supply	35.	Wells
98	Candlestick Mobile Park	324.	Wells
99	Castle High Trailer Park	130.	Wells
100	Crystal Run Village Inc.	100.	Wells
101	Dicker's Bungalow Colony	30.	Wells
102	Dombal Trailer Park	70.	Wells
103	Donovan's Place	20.	Wells
104	Doodletown Water System (Ro and Co, Page 74)		Queensboro Lake
105	Fair Mead Farm	15.	Wells
106	Fairlawn Mobile Village	60.	Wells
107	Falkirk Hospital	45.	Wells
108	Fancher Trailer Court	55.	Wells
109	Federal Correctional Instit	500.	Wells
110	Gillen Trailer Park	16.	Wells
111	Goshen Center for Boys	250.	Wells
112	Greenwood Mobile Home Court	125.	Wells
113	H A Harris, Inc.	25.	Wells
114	Hampton Realty Trailer Park	23.	Wells
115	Hill and Dale Mobile Home P	55.	Wells
116	Hilltop Haven Trailer Park	NA.	Wells
117	Hogencamps Trailer Court	6.	Wells
118	Holiday Mobile Park Inc.	225.	Wells
119	Hudson Valley Trailer Park	25.	Wells
120	Hudson View Terrace (Lower Section)	120.	Wells
121	Hudson View Terrace (Upper Section)	150.	Wells
122	Huguenot Estates East	125.	Wells
123	K & M Mobile Home Park	46.	Wells
124	Kaylake Lodge	30.	Wells
125	Kimball Farms	83.	Wells
126	Lage Country Homes	NA.	Wells
127	Lamplight Village	260.	Wells
128	M C U Realty	NA.	Wells
129	Mary Crest Convent	40.	Wells
130	Mason's Trailer Park & Apartments	60.	Wells
131	Mid-Hudson Psychiatric Cer	400.	Reservoir
132	Mid-Lake Park	15.	Wells
133	Mid-Orange Correctional Facility	1200.	Wells
134	Montgomery Nursing Home	100.	Wells
135	Mt Airy Trailer Court	240.	Wells
	Non-Municipal Community		
136	Mt Hope Foundation-Residence	35.	Wells
137	Mt Orange Trailer Park	40.	Wells
138	NYU Housing Sterling Forrest	120.	Wells
139	Old 9-W Realty Corp	30.	Wells
140	Otisville Rehabilitation Center	NA.	Bear Swamp Reservoir
141	Pine Grove Trailer Park	250.	Wells
142	Pius XII School	95.	Wells
143	Rock Terrace Trailer Park	110.	Wells
144	Schefcick Trailer Park	36.	Wells
145	Silver Stream Trailer Court	105.	Wells
146	Sleepy Hollow Mobile Park	620.	Wells
147	Sosa Water Supply	25.	Wells
148	South Maple Estates	50.	Wells
149	Southfields Heights Apartments	200.	Wells
150	Spruce Lodge	350.	Wells
151	St Patrick's Villa Group	42.	Wells
152	St Patrick's Semi-Military Academy	122.	Wells
153	Stoney Ford Trailer Park	30.	Wells
154	Sunset Haven	NA.	Wells
155	Sunset Trailer Court	36.	Wells
156	Thompsons Trailer Court	35.	Wells
157	Tri-State Trailer Park	35.	Wells
158	U S M A - Stony Lonesome System	12000.	Long Pond, Stillwell Lake
159	US Military Academy Lusk System	NA.	Popolopen Lake, Queensboro Lake
160	Valley View Park	150.	Wells
161	Walden Mobile Home Association	36.	Wells
162	Walters Trailer Village	225.	Wells
163	Warwick Garden Apartments	33.	Wells
164	Wawayanda Trailer Park	35.	Wells

SURFACE WATER INTAKES ▲

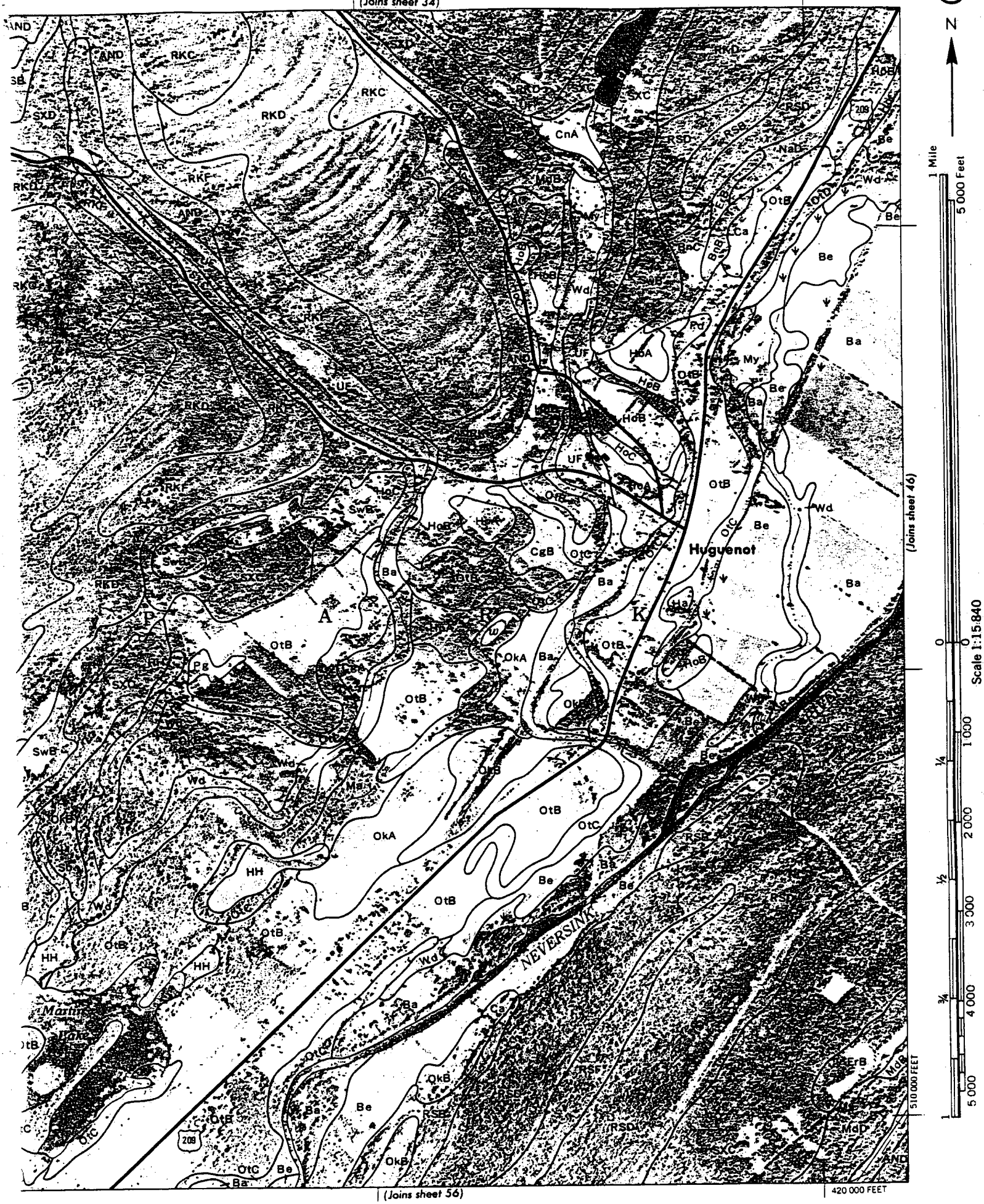
GROUND WATER SOURCES ●

il Survey of

Orange County, New York



nited States Department of Agriculture, Soil Conservation Service
ooperation with Cornell University Agricultural Experiment Station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Huguenot
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1 Mile
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209

is difficult because of droughtiness. Some areas are suitable sources of sand.

The capability subclass is IVs.

OkB—Oakville loamy fine sand, 3 to 8 percent slopes. This deep, well drained, gently sloping soil formed in glacial outwash deposits that are dominantly fine sand. It is on terraces and undulating flats in valleys and on lowland deltaic plains. Areas are round or long and narrow and are commonly 10 to 20 acres.

Typically the surface layer is dark brown loamy fine sand 8 inches thick. The subsoil is very friable, yellowish brown fine sand 28 inches thick. The upper part of the substratum from 36 to 48 inches is brown fine sand, and the lower part to 60 inches is loose, grayish brown fine and medium sand.

Included with this soil in mapping are small areas of the gravelly Hoosic soils and very gravelly Otisville soils. Pockets of very poorly drained, sandy Scarboro soils and gravelly Halsey soils in a few depressions are identified by spot symbols on the soil map. In a few areas the subsoil is fine sandy loam.

Depth to the seasonal high water table is more than 3 feet. Permeability is rapid in the surface layer and is very rapid in the subsoil and substratum. Available water capacity is low, and runoff is slow. Root penetration is excellent if moisture is available. Natural organic matter content is low. The soil is generally gravel free. In unlimed areas, the surface layer is medium acid to neutral.

Some areas are farmed or developed for urban uses. Many are idle.

This gravel-free soil is generally easy to till and can be cultivated early in spring. It is not well suited to cultivated crops and hay because of droughtiness in summer and low natural fertility. Deep-rooted crops, such as alfalfa hay, are better suited to this soil than other crops because they obtain moisture from the subsoil and substratum. Specialized crops and vegetable crops do well if irrigated. Sprinkler irrigation is well suited to this soil but is somewhat more difficult to operate than on the nearly level Oakville soils. Because the soil is low in natural fertility and fertilizers are easily leached out in the very rapidly permeable subsoil, timely application of fertilizer is important. Erosion is a minor hazard in areas left bare of plant cover. Minimum tillage, cover crops, return of crop residue and animal manure to the soil, cross-slope tillage, and sod crops in the cropping system are needed to maintain tilth, to reduce the slight erosion hazard, and to improve organic matter content, which increases the available water capacity.

This soil is suitable for early season pasture, but droughtiness restricts growth in midsummer. Proper stocking, rotation grazing, and restricted grazing in dry periods are needed to maintain pasture seedings.

Suitability for timber is poor to fair. Wooded areas commonly support such species as northern red oak, red pine, and white pine. High seedling mortality is a serious problem because of droughtiness.

This soil is suitable for some urban uses. Ca design and construction of septic tank absorption is needed because the very rapidly permeable sut tum allows movement of effluent into the water Lawns and golf fairways tend to grow slowly and sp ly unless irrigated and adequately fertilized. Some are suitable as a source of sand.

The capability subclass is IVs.

OtB—Otisville gravelly sandy loam, 0 to 8 pe slopes. This deep, excessively drained, nearly le gently sloping soil formed in glacial outwash de that are dominantly sand and gravel. It is on ter and undulating plains in valleys and on lowlands. are mostly round or oval and 5 to 20 acres.

Typically the surface layer is dark grayish brown elly sandy loam 6 inches thick. The subsoil is 22 i thick. The upper part is yellowish brown gravelly sand, and the lower part is yellowish brown very g sand. The substratum to a depth of 60 inches is g brown very gravelly sand.

Included with this soil in mapping are spots somewhat excessively drained to well drained soils and Chenango soils and well drained sandy ville soils. Spots of the somewhat poorly drair poorly drained Fredon soils occur in slightly lower Pockets of the very poorly drained sandy Scarbor in a few depressions are identified by spot symb the soil map.

Depth to the water table is usually more than Permeability is rapid in the surface layer and subs is rapid or very rapid in the substratum. Available capacity is very low, and runoff is slow. Root pene is good if moisture is available. Natural organic content is low. Gravel fragments make up 15 percent of the surface layer, and the content inc in the subsoil and substratum. In unlimed are surface layer is extremely acid to strongly acid.

Some areas are used for pasture, hay, and purposes. A few are used for cultivated crops, an are mined for sand and gravel.

This soil is poorly suited to most crops beca severe summer droughtiness and low natural Deep-rooted crops, such as alfalfa hay, are sor better suited than shallow-rooted crops becaus can obtain moisture from deep in the subsoil a stratum. Vegetable crops and field crops are sui areas where irrigation water is available. Grav ments, however, can interfere with precision plan with harvesting. Gravel fragments also cause exc rapid wear of tillage equipment. Timely applic fertilizer is important because of the overall low fe the soil and the hazard of fertilizer leaching thro rapidly permeable subsoil. Erosion is only a mino in most areas. Minimum tillage, cover crops, r crop residue, cross-slope tillage, and sod crop cropping system are needed to maintain tilth increase organic matter content, which improve ble water capacity.